Alaskan Way Viaduct and Seawall Project

Estimating Accurate Project Costs

The Alaskan Way Viaduct and Seawall Project is a partnership between the Washington State Department of Transportation (WSDOT) and the City of Seattle (City) and together they are moving quickly to meet the urgent public safety risk posed by these two structures. As plans are being developed to replace or retrofit the viaduct and seawall, one of the most commonly asked questions is: how much will it cost?

WSDOT and the City are working on defining the best plans for replacing or retrofitting the viaduct and seawall. Once they have completed preliminary engineering for these plans, they will develop a range of costs for each of them. The cost range of each option will be released this summer. It is important to understand how cost estimates are prepared and what they will mean.

Complete Information Needed for Accurate Estimates
Replacing or retrofitting the viaduct and seawall will occur in the middle of downtown Seattle with buildings, traffic, and people using the same facilities and land that will be needed to build the project. This means there are many variables that need to be part of the project's plans.

For example, what land will be needed for equipment during construction? Where will traffic be detoured during construction and will temporary roads need to be built? What surface streets will need to be rebuilt after construction and will that include new sidewalks, parks, or something else? Answers to these questions, and many more, will significantly affect how much each of the potential plans will cost.

To answer these questions, WSDOT and the City are working on the following:

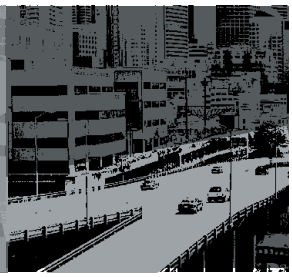
- Integrating planning, environmental and engineering development so that the most complete definition of each of the plans is ready for cost estimating.

Washington State Department of Transportation

City of Seattle

For general project information:

- Visit the project website at ***www.wsdot.wa.gov/projects/viaduct***
- Call the project hotline at **206-269-4421**



- Advancing high-risk engineering items first, such as geotechnical investigations, so that those elements that may cost the most are known early in the process.
- Identifying and quantifying issues that may affect the costs, such as environmental permits, availability and timing of funding, and state of the art technologies.

Accurate Estimates Include Costs and Contingency

We all estimate costs in our daily lives, whether we are trying to decide how to buy a home or build a fence. If you're a homeowner and trying to fence your yard, you will measure how many posts will be needed and then add together the costs of the posts, nails, and bags of concrete together come up with a cost estimate. WSDOT and the City will be conducting a very similar exercise to estimate the costs for replacing or retrofitting the viaduct and seawall. For example, a typical roadway section will include a foundation, pier, girder and superstructure concrete elements. Each element will be grouped and costed separately. All of the elements' costs will then be added together to determine the total range of costs to construct the facility.

A risk and opportunity cost factor will also be applied to the each of the plans. This allows for items that cannot be quantified accurately at an early stage in the project. This is because something is unknown or a design is incomplete at the time the cost is estimated. For example, when soils are tested prior to excavation and hazardous contaminants are found, further tests are prompted and assessments will need to be made in order to determine the best way to remedy the situation. This discovery spurs action that was not anticipated in the initial cost of the project but must take place.

Cost Estimates Will Evolve

WSDOT and the City are in the early stages of the design process; therefore cost estimates will be presented as a range of potential costs. It is important to remember that any single cost estimate represents only one possible estimate and is dependent on the variables and assumptions used. Cost estimates presented this summer will be estimated in today's dollars and escalated to the mid-point of construction. This means if there are project delays, inflation will contribute to a greater total project cost.

We expect to have the first range of estimates by the end of July and plan to present the information at a series of open houses this summer along with WSDOT and the City's preliminary preferred alternative.